FINANCIAL IMPACT ANALYSIS

A handbook for municipal planners

Ontario
Ministry of
Municipal
Affairs
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Municipal Finance Branch
Research and Special Projects Branch
December 1985

Available from:

Ontario Government Bookstore
880 Bay St.
Toronto M7A 1N8

Price: $5.00 payable to
the Treasurer of Ontario

ISBN 0 7729 0984 9

PREFACE

Municipal councils are invariably faced with the task of having to weigh the benefits and the costs of planning policies and new development when making decisions regarding changes in the community. The changes, for example a large residential project, often affect many aspects of community life from population size and mix, to job creation, to schools, to consumer spending, etc., to name a few. In some instances, the changes result in financial benefits to the municipality outweighing the associated costs. The decision by council may very well be to proceed with a policy or project, even if costs outweigh revenues, provided there are attractive non-financial benefits, such as bringing more skilled people into the community.

The financial impact of planning policies or development proposals is generally not well understood by community planners. In these times of fiscal restraint and economic uncertainty, municipalities are increasingly interested in a balanced understanding of the benefits and costs of change. The purpose of this handbook is to describe the financial evaluation process to planners so that they:

- o may understand the fundamentals of this type of analysis,
- o appreciate the applicability of this type of analysis to their day-to-day work, and
- o interact competently with the financial specialists whose responsibility it is to perform a financial impact analysis.

Financial impact analysis is a specialized field. It is not expected that planners would undertake an evaluation on their own, unless they have received specific training in this area.

The handbook has been prepared co-operatively by the Municipal Finance and, Research and Special Project Branches of the Ministry of Municipal Affairs. It provides information, not regulations. It is not meant to imply that financial impact analysis becomes an automatic part of the planning process. The handbook will, however, indicate situations where a financial impact analysis would be both appropriate and useful.

The approach to financial impact analysis of planning policies and development proposals, outlined in this handbook, is one which is normally used by the Ministry of Municipal Affairs. For details on other methods, planners should refer to the bibliography appended to the report.

A special word of thanks is extended to the municipal planning directors, financial officers and chief administrative officers who participated either in mail or telephone surveys during the initial stages of this project and to the individuals and organizations who so thoughtfully reviewed the final draft.

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CHAPTER 1

INTRODUCTION TO THE HANDBOOK

1.1 Changing Times

Financial impact analyses have been widely used in the last 15 years to estimate the financial implications of rapid growth for municipalities. One example is a study undertaken for the community of Elliot Lake several years ago to evaluate the financial impact on that municipality of rapid population growth resulting from the expansion of the nearby uranium mines. In other situations financial impact analyses have been carried out to estimate the public costs and benefits of proposed projects, such as a residential subdivision, a new shopping centre or a generating station.

The analyses have largely been carried out by finance professionals. Increasingly, they are now being used in a wide range of planning situations, such as evaluating commercial and industrial redevelopment proposals, comparing various development options (in a policy context), and assessing the effects of population decline.

The current growth in interest in financial analysis is, of course, spurred by financial cutbacks at all government levels and the need to distribute existing resources more carefully. The relationship between the official plan and the capital and operating budgeting processes is an obvious one, and there is more interest at the municipal level to improve the corporate planning function.

1.2 Main Uses of Financial Impact Analysis

In the context of community planning, financial impact analysis can be used in two principal ways: to analyze planning policy changes and to evaluate (re)development proposals. The following chapters describe the basic steps in the process. Reference is made to both circumstances and to where different steps might have to be followed for each.

1.3 Why Do Financial Impact Analysis?

Effective local planning allows municipal government to control the future physical configuration of local communities and to integrate

development proposals in an optimal manner. However, the adoption or amendment of an official plan or the development of secondary plans often substantially alters the servicing needs of a municipality. For example, a residential development proposal may require the amendment of the official plan to convert agricultural land to residential uses. This will create a demand for sewer and water systems, roads, etc. which were not previously available at the location, since it may have been a farmer's field.

The provision of new services or the expansion of existing facilities have costs associated with them. These costs may be offset by increased municipal revenues. However, if the community does not have the financial wherewithal to meet these costs within its current budget, the financing policies of the municipality may have to be reviewed, the development proposal modified, or alternative sources of funding found. The inclusion of financial impact analysis in the planning process will permit the municipality to assess the financial benefits and costs of planning policy changes or development proposals, and to ascertain the municipality's financial ability to undertake them.

While the development or amendment of an official plan or the approval of a development proposal are not exclusively based on financial considerations, it is important that the financial aspects be considered. Municipal governments, like all other levels of government, have limited resources with which to provide the required services and, therefore, are invariably faced with having to decide among alternative programs which are competing for scarce dollars.

A financial analysis of alternative planning policies or development proposals can be of invaluable assistance in arriving at the right decision. Once the cost and revenue impacts of various planning changes are known the decision-makers will see more clearly the effect of choosing one course of action over another, although the final choice may not be the least costly one.

An example might be the location of a highway corridor. The least costly route might cut through prime agricultural land, while an acceptable, but more costly, alternative would be routed through poor quality land, but would necessitate bridging in a number of places.

Applied in this way, as one of a number of factors to be considered, financial impact analysis is a powerful tool. It can be useful in identifying a wide range of items, for example:

- comparative costs and revenues among several alternative planning policies,
- under-utilization of resources in a particular area,
- levels and sources of senior government grants,
- future need for various municipal services, such as recreational facilities.

Figure 1 shows the financial impact analysis process in flow chart format.

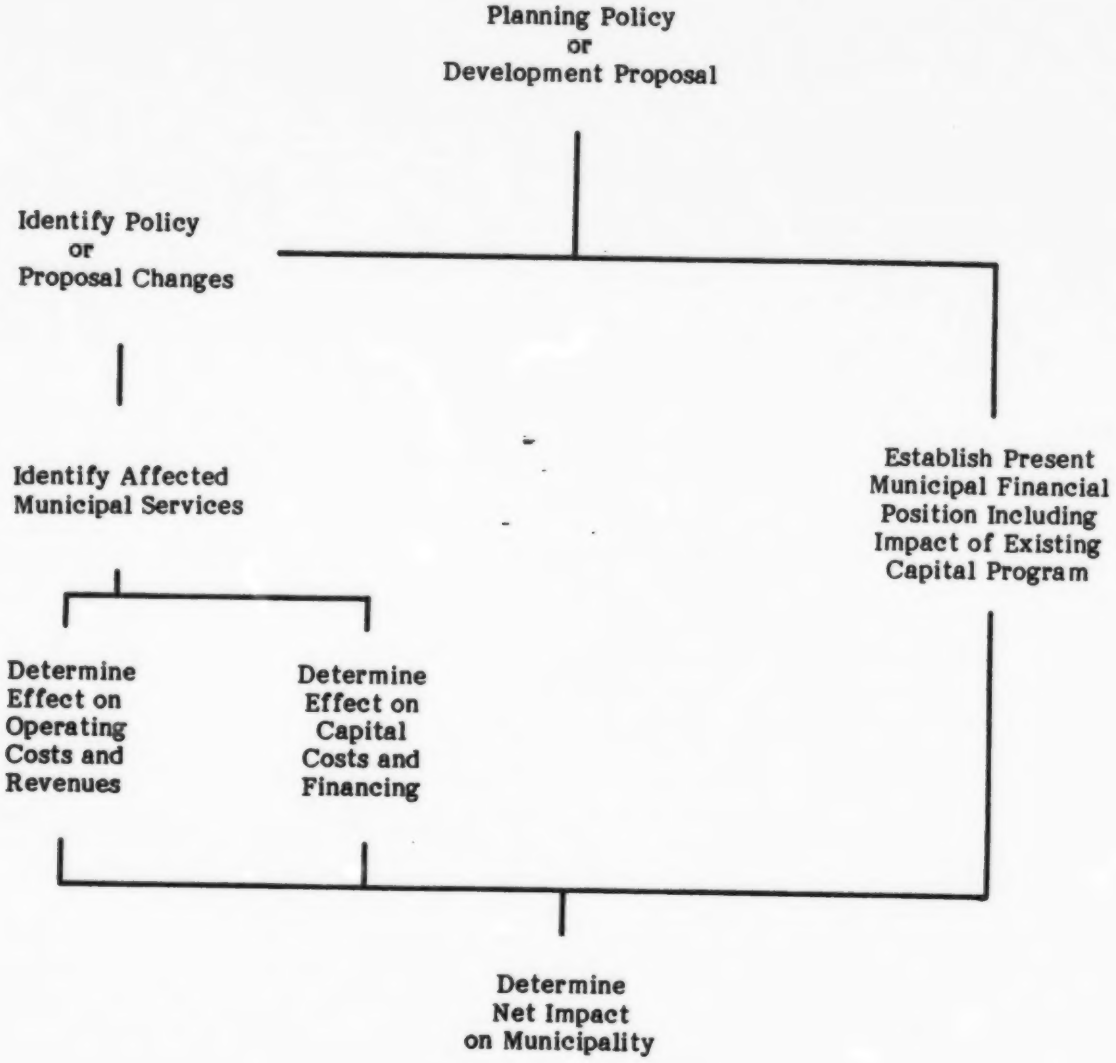
1.4 The Handbook

The financial impact analysis process is described in some detail in the four chapters that follow:

- Chapter 2 introduces the concept and provides a brief synopsis of the process.
- Chapter 3 describes how the impacts on services associated with planning policy changes or development proposals can be identified and quantified.
- Chapter 4 describes how the current financial position of a municipality is determined.
- Chapter 5 describes how the information gathered in Chapters 3 and 4 is brought together to arrive at the net impact on the municipality.

Figure 1

FINANCIAL IMPACT ANALYSIS PROCESS



CHAPTER 2

FINANCIAL IMPACT ANALYSIS

2.1 What Is It?

In general terms, a financial impact analysis attempts to identify the costs and revenues of a change in the level and number of services provided by a municipality (eg. the construction of a sewage plant) and to compare such costs and revenues in some meaningful way to determine if the change has a positive or negative financial effect.

Change in a municipality's services can be caused by many factors. For the purposes of this handbook, the main focus will be on changes in the level and number of municipal services which result from a change in planning policy or a development proposal. The impact on school boards' finances, however, will also be addressed although not in as much detail.

2.2 How Is One Done?

The methods used to assess the costs and revenues of a change in municipal services are many and vary considerably. This is particularly true if the analysis involves projections into the future. The ideal situation would be to know all of the actual costs and revenues in advance; however, this is rarely possible as a result of uncertainties about the future course of events (e.g. the rate of inflation, cost overruns, unexpected events, etc.). Consequently, various estimating techniques must be used. The selection of the estimating technique is of relevance because it may affect the desired level of accuracy of the estimates they generate. A review of a number of commonly used techniques is presented in Chapter 3.

Most financial impact analyses focus on direct costs and revenues. For example, the capital and operating costs of a new recreation complex and associated concession revenue, and program or activity fees would be included. However, secondary effects, such as the employment generated during the construction phase, would be excluded because their impacts on a municipality are not easily quantifiable. Although higher employment levels may mean that taxes are paid more promptly, the employees could alternatively reside in other municipalities.

2.3 When Should One Be Done?

The decision to do a financial impact analysis of a policy change or planning proposal depends on many factors, some of which are specific to the particular change or proposal being considered. Each municipality should set its own guidelines for situations where a financial impact analysis is required or recommended.

Some of the more common factors normally considered when determining the need for an analysis are:

- Size of development proposal, for example, a major subdivision or large mixed-use project in the downtown area of the municipality. The size of the proposal requiring an analysis would be, of course, relative to the overall size of the municipality;

- Significance of the policy change, for example, a change in designation of industrial land to commercial or residential use;

- Cumulative effects of several small development proposals or policy changes. While it may be impractical to perform a financial analysis of minor changes, such as the redesignation of a particular building site, the accumulation of a number of small changes or proposals could result in a major impact in a particular area;

- Whenever a significant capital expenditure is required. Municipalities are limited on the level of debt they can issue and carry. If a capital expenditure is required and new debt will be issued, it is necessary to determine if there is sufficient financial capacity to carry the debt.

2.4 What Information Is Required?

A financial impact analysis can be most effectively performed when there is sufficient detailed information to identify and quantify the services affected by a planning policy change or development proposal. The type of information required includes population and household changes, potential industrial development and the physical location in the municipality where the projected changes in service requirements will occur. If population, household, or employment projections are available, it is often possible to estimate other data. Physical location is important, since it will be possible to determine if existing infrastructure, such as a sewage plant or municipal roads, can accommodate the increased demand for services or if new facilities will have to be constructed.

Generally speaking, development proposals can provide a much more complete estimate of the impact on services, than planning policy changes. Normally, a developer specifies the number and type of residences or the type of commercial or industrial property to be constructed and the location of the development. From this, the change on municipal services can be readily determined. A development proposal will most likely indicate if major construction of new infrastructure is required. It may also be accompanied by a financial analysis or evaluation.

Planning policy changes do not contain the same level of detail, but usually will indicate the location where the change is most likely to take place. The planner may have to estimate much of the data, such as housing units, population, non-residential floor space etc.

Because proposed policy changes are simply statements of intent, they usually do not provide sufficient data to measure the financial impact in detail. This is often the case with many community-wide policy statements which appear in the official plan. Nevertheless, a meaningful general indication of the financial impact can be made by examining a sample of municipalities with similar characteristics (population, services provided, etc.) as those projected for the municipality being studied. It is often possible to draw conclusions about the cost to a municipality of growing from a population of 30,000 to 50,000 people by selecting a sample of comparable municipalities with approximately 50,000 population, looking at average costs per household for each function and comparing them to present costs.

All things considered, development proposals can be more easily evaluated than planning policy changes, since they provide more concrete data to work with and show exactly which services are required and where. Although more difficult to evaluate, the financial impact of changes in planning policies can be determined, as long as the changes can be explicitly expressed and quantified.

2.5 Which Costs and Revenues Are Included?

The costs and revenues mentioned in the handbook refer to local government costs and revenues only. While a planning policy change or development proposal can have an effect on private costs and revenues, as well as on senior levels of government, the main concern of a municipality should be the financial implications of the policy change or development proposal on its own programs, and consequently, on the level of property taxes. More specifically, while development proposals may make reference to private costs for the developer and the need for new infrastructure to be financed partly by the federal or provincial governments, the municipal portion of the costs should be of prime importance. Naturally, some consideration should be given to overall development costs, since this affects the final price of residential units and industrial sites.

2.6 What Are the Implications for the Municipality's Capital and Operating Budgets?

Municipalities, by statute, must operate within certain financial constraints. Two important areas of concern are the limitations on the level of debt a municipality can carry for capital projects and the requirement for a balanced operating budget. Even if the change or proposal will make a positive contribution, the municipality must judge whether it can be accommodated within current budget projections.

It is also important that the impact of the planning policy change or development proposal be assessed in the overall context of the municipality's operations, including all other ongoing servicing needs. For example, the municipality may already have a complete capital program in place. The introduction of new services related to a policy change or proposal may make it necessary to delay or cancel an already planned expenditure because the current operating budget may not be able to accommodate the financing of the requirements, in addition to those already identified under the existing capital program.

2.7 How Will It Affect Taxpayers?

The analysis should also include an assessment of the impact on the local taxpayer. Although a municipality may be able to afford a planning policy change or development proposal, the action may result in a tax increase not only on projected future property taxpayers, but also on existing ones. This impact must be determined as part of the financial evaluation.

2.8 What Other Considerations Are Involved?

Financial impact analysis can be done using either the constant or current dollar approach to measure the costs and revenues through time. The current dollar approach estimates the value of future costs and revenues when they will be incurred or received. Constant dollars are current dollars with the inflation component removed. The advantage of using the constant dollar approach is that it avoids the problem of estimating inflation. The disadvantage is that it does not allow for the comparison of projected costs and revenues against the actual amounts incurred. Either can be used in performing a financial analysis as long as they are used consistently.

It is also important to distinguish between quantitative and qualitative impacts. For example, if an arena is constructed, it is relatively easy to determine the cost of materials used and the salaries of the workers. It would be much more difficult, however, to determine how the quality of life in the community has improved as a result of the increased access to the recreational facility.

Throughout the handbook, reference is made to capital and operating costs. Capital costs are normally associated with the acquisition of property, a facility or piece of equipment which has a relatively long life, for example, an arena, a bridge or a bus. Operating costs are the costs generated by the everyday running of the municipality, such as salary costs and maintenance costs for equipment. The two types of costs are reported separately by the municipality in its revenue (operating) fund and capital fund, respectively.

IDENTIFYING AND QUANTIFYING THE IMPACT OF MUNICIPAL SERVICES

3.1 Overview

The objective of a financial impact analysis is to assess a municipality's ability to absorb changes in service requirements while remaining financially viable. It is important that a reasonably accurate determination be made of which services will be affected, particularly, those which may require considerable capital investment to meet the new demand. The question of accuracy is also important, because the permissible level of debt funding for capital projects is strictly controlled by the Ontario Municipal Board. If there is insufficient borrowing capacity, the municipality may be faced with substantial increases in property taxes to finance the expansion in services. It is also necessary to know which services will be no longer required. The extent of the changes in demand will also be very dependent on the nature of the change in planning policy or the development proposal. For example, a change in land use policy for a particular parcel of land from agricultural to residential will have a different effect than re-designating land from residential to commercial use.

This chapter outlines ways of identifying the potential impact and of measuring the service level changes in physical terms, as well as in terms of the additional costs and revenues. Since policy changes and development proposals vary a great deal, ranging from an original official plan to a change in density from R1 to R4, the chapter will focus on the general approaches that can be used to determine the servicing and financial impacts rather than looking at specific cases.

The procedures to evaluate planning policy changes and development proposals are virtually identical. As mentioned in Chapter 2, the main difference is in the level of detail in the available data.

It is important to be aware that it is always possible to do some form of financial impact analysis. However, if very little information is available, the analysis will be less reliable and therefore, less useful. Prior to describing the

steps in quantifying the impacts, a number of factors which can affect the procedure should be outlined.

3.2 Municipal Government Structure

Existing organizational considerations may require a financial analysis of more than just the municipality in which the planning policy change or new development project is likely to occur. The major portion of the population in Ontario lives in areas with a two-tier system of municipal government. This creates a complication in assessing the impact of a development proposal or planning policy change because the affected services may be provided by both levels of government. The two-tier system includes all municipalities in Metropolitan Toronto, the regions and counties (excluding cities and separated towns). All other municipalities including all cities and separated towns located in counties and all municipalities in northern Ontario (excluding the Regional Municipality of Sudbury), have a single-tier system.

In Metropolitan Toronto and the regions, the upper-tier government usually provides health and social services, police protection (except ttawa-Carlton), transit, major roads, garbage disposal and regional planning. The lower-tier or area municipality provides fire protection, local roads, garbage collection, recreational services and local planning. Responsibility for sewer and water services is often shared between the upper and lower-tier municipality except in those regions created since 1973 where responsibility lies with the upper-tier level.

In the counties the upper-tier is responsible for fewer services than is the case in Metro Toronto and the regions. County roads, health services and social services are the main services provided; all other services provided by

TABLE 1: MUNICIPAL SERVICES

Service Category	Services
General Administration	General Administration, Financial Transactions
Protection to Persons and Property	Police, Fire, Building Inspections
Transportation	Roadways, Winter Control, Transit, Parking Street Lighting.
Environment	Sanitary Sewer System, Storm Sewer System, Waterworks System, Garbage Collection, Garbage Disposal, Pollution Control
Health	Public Health, Ambulance Services
Social and Family	General Welfare Assistance, Assistance to Aged, Assistance to Children, Day Nurseries
Recreation and Culture	Parks and Recreation, Libraries.
Planning and Development	Planning and Zoning.

the lower-tier. The cities and separated towns in counties are responsible for providing the complete range of services that are available.

In northern Ontario all municipalities, except those in the Regional Municipality of Sudbury, are responsible for providing the complete range of services. Some services, however, such as health and social services may be provided by district boards which cover two or more municipalities, each of which appoints members to the boards.

3.3 Services Provided by Municipalities

Municipalities vary widely in the range of services they provide. For instance, rural townships may only provide a few services, roads being the major one, while cities provide most municipal services. To determine which services will be affected by a planning policy change or a development proposal, it is useful at this point to identify the range of services which may be provided by municipalities. These services have been grouped by category and are listed in Table 1.

3.4 Assessing the Impact on Services

The basic procedure for analyzing the effect on services involves the identification of the specific geographic location which will be affected, the services which could experience a change in demand and, finally, whether the existing physical facilities in proximity to the affected location can accommodate the additional demand. If existing facilities can accommodate the increased demand, the only effect will be on operating costs; if not, a more extensive analysis will be required.

3.4.1 Identify Change or Proposal To Be Evaluated

The first step in the process is to clearly determine the exact change or proposal being considered. In the case of a development proposal, this is normally quite clear since the developer will have specified where the development will occur, the type of development and the likely servicing changes that may be required.

In the case of planning policy changes, the identification of the locations where changes may occur may be more difficult. If the policy is related to the designation of a particular piece of land, there is no problem. However, if it is a more general planning policy change, such as the selection of an area for industrial development, there may be more than one possible location within the municipality which would be suitable. Each location should be identified and a separate analysis done.

Again, if the planning policy change is related to an anticipated growth in population, some attempt should be made to select probable sites where the residential growth could occur. An analysis should then be done for each location.

3.4.2 Identify the Services Affected

To be able to quantify the changes in services it is necessary to accurately identify which services will experience an increase or decrease in demand. For a complete picture, in the case of commercial and industrial changes, it is also important to have information on the type of economic activity which will result from the policy change. If, for example, a municipality intends to develop an industrial park, it is desirable to have some knowledge of the type of companies which will locate in the park. This would be of assistance in assessing the operating and capital costs of the services to be provided to the park. For example, a food processing plant may require a large volume of fresh water, which may create the need for a new water and sewer system, while a warehouse requires very little water and could be accommodated by the current facilities.

The range of services to be affected by a particular planning change or development proposal varies widely. If a land use policy in an official plan calls for new housing development, the resulting increase in population would tend to impact on a wide range of municipal services. On the other hand a re-designation of a particular site from R1 to R4 may only result in a slight increase in the demand for services already provided.

Table 2 displays a checklist of the services which can be affected by development and provides a starting point for the analysis. For example, the provision of social and family services is likely to be directly affected by residential development, but not by commercial and industrial development. This table can be varied to fit local municipal circumstances.

TABLE 2: MUNICIPAL SERVICES AFFECTED BY DIFFERENT TYPES OF DEVELOPMENT

Service	Residential	Commercial	Industrial
General Administration	Yes	Yes	Yes
Protection to Persons and Property			
Fire	Yes	Yes	Yes
Police	Yes	Yes	Yes
Protective Inspection and Control	Yes	Yes	Yes
Transportation			
Roadways	Yes	Yes	Yes
Winter Control	Yes	Yes	Yes
Transit	Yes	Yes	Yes
Parking	Yes	Yes	Yes
Street Lighting	Yes	Yes	Yes
Environment			
Sanitary Sewer System	Yes	Yes	Yes
Storm Sewer System	Possible	Yes	Yes
Waterworks System	Yes	Yes	Yes
Garbage Collection	Yes	Yes	Yes
Garbage Disposal	Yes	Yes	Yes
Pollution Control	Yes	Yes	Yes
Health			
Public Health Services	Yes	No	No
Public Health Insp.	Yes	Yes	No
Ambulance Services	Yes	Yes	Yes
Cemeteries	Yes	No	No
Social and Family			
General Assistance	Yes	No	No
Assistance to Aged	Yes	No	No
Assistance to Children	Yes	No	No
Day Nurseries	Yes	Yes	No
Recreation and Culture			
Parks and Recreation	Yes	No	No
Libraries	Yes	No	No
Planning and Development			
Planning and Zoning	Yes	Yes	Yes
Com. and Ind. Devel.	No	Yes	Yes
Resid. Development	Yes	No	No
Tile Drainage	No	No	No

3.4.3 Identify Type of Impact

Municipal services have two distinct components, the infrastructure or capital component and the operational requirements. For example, in the case of a water system, the water processing plants and the pipes in the ground constitute the infrastructure, while the chemicals and staff required to maintain water purity and operate the system make up the operating component.

As mentioned earlier, a key consideration in determining a municipality's ability to absorb servicing changes resulting from a new policy or development proposal (if current physical capacity cannot meet the increased demand for services) is its ability to finance additional capital works. Investment in capital facilities may occur at periodic intervals and in sizeable amounts. Additional servicing requirements can be provided by the existing facilities up to the maximum capacity or threshold. When that threshold is reached a new physical plant must be provided or the existing facilities expanded.

For some services capacity must be added in large amounts, while for other services the amounts required are much more variable. For example, a new residential development may cause the capacity of the existing water processing plant to be exceeded. A major construction project is then required to add extra capacity. The same residential development may also create a demand for additional library staff. However, space for these workers may be available within existing premises or by simply leasing more space.

Since the expansion of an existing facility or construction of a new facility generally requires considerable lead time between the recognition of the need and the completion of construction, it is important to identify these requirements for new facilities at the beginning of the planning process. The municipal services which are more likely to require close scrutiny since they have well defined physical plant capacity limitations are:

- Transportation Services
  - Roadways
  - Transit
  - Parking
  - Street Lighting
- Environmental Services
  - Sanitary Sewer System
  - Storm Sewer System
  - Waterworks System
  - Garbage Disposal
  - Pollution Control
- Recreation and Cultural
  - Parks

3.4.4 Determine Capital and Operating Costs

Capital costs, as noted previously, are normally associated with the acquisition of a property, facility, or piece of equipment which has a relatively long life. In this sense, capital goods are unique in that they are relatively non-recurring. Therefore, the best method of estimating their cost is by direct measurement. First, it must be determined if new facilities are required by comparing required capacity to existing capacity.

If current capacity is insufficient then new, or additions to existing facilities, need to be planned for. In a development proposal the cost of these increases to capacity will likely be specified. With respect to a planning policy change, potential costs can be estimated by a municipality's various departments.

Operating costs are not as easily estimated using the direct measurement approach because the necessary up-to-date information is usually not readily available. Therefore, the determination of these costs is usually based on a number of estimating techniques. Any combination of these techniques may be used in a financial impact analysis. The techniques apply equally to the determination of capital costs when the direct measurement approach is not feasible, although the description that follows refers only to operating costs.

Per Capita (Per Household) Method

In this method, the average operating cost per person (per household) is obtained by dividing the current total costs for the latest year for a service, by the present population (household count). The resulting unit or dollar cost can then be multiplied by the new population (household count) to give the total annual operating cost increase for the service. This is

repeated for each of the services to obtain the total increase in operating costs. For example, if a municipality has a population of 30,000 and an annual general welfare assistance cost of $600,000, the annual per capita cost is $20. If the population is expected to increase by 5,000, then, the cost will increase by $100,000.

This method is very popular with analysts in quantifying costs, since it is relatively simple to use and easily understood. Its main disadvantage is that it does not provide sufficient cost information on commercial and industrial development proposals.

Per Unit of Service Method

If the planning policy change does not involve a change in population, it is possible to estimate operating cost increases by using the per unit of service method. This is also based on the average cost of providing a service and involves dividing the total annual operating costs for the service by the total number of service units provided. Using the earlier example, the municipality has a welfare case load of 600. The annual unit cost is, therefore, $1,000 per case. If the new development results in an extra 75 cases, then annual costs will increase by $75,000.

The Case Study Method

The case study method assumes that costs will not be the same as in the past. In other words, it assumes the cost of the next unit of service will be unique. The method requires intensive on-site investigation to determine the current utilization of existing services. The method is suited for determining capital costs.

Service Standard Method

Under this approach, service standards are developed for groups of similar municipalities (for example, all towns in southwestern Ontario). It uses the number of municipal employees providing each service per thousand of population. The projected population increase resulting from the policy change or development proposal is then multiplied by the appropriate service standard to estimate the servicing impact in terms of additional employees required. The servicing impact is then converted into a dollar value by multiplying the number of added staff by the average salary per employee in each service.

For example, assume a development proposal would increase the population of a community in southwestern Ontario from 10,000 to 12,500. Assume also that municipalities in southwestern Ontario with populations ranging between 9,000 to 12,000 have an average of 2.1 policemen per 1,000 people. Then, the new growth will require approximately five (2,500 x 2.1/1000) additional policemen. If the average salary for a policeman in the municipality is $25,000, the increase in costs would be $125,000 per year.

Comparable Municipality Method

This method uses groups of similarly sized municipalities to develop per capita (per household) benchmarks. The method has been touched upon briefly in section 2.4 of Chapter 2. The selection of comparable municipalities for this technique will be discussed in Chapter 4.

Proportional Valuation Method

This method is not commonly used. It uses a two step process to assign a share of municipal costs generated by a policy change or development proposal on the basis of the proportion that the change in property assessment resulting from the policy change or development proposal is of the total property assessment in the municipality. For instance, a 10 percent increase in property assessment would imply a 10 percent increase in service costs.

Employment Anticipation Method

This method is used in conjunction with commercial and industrial development proposals. The method assumes that there is some relationship between the per capita cost of municipal services and the labour force in the municipality. The relationship is established by using regression analysis which relates the change in the cost of each municipal service to changes in the number of industrial and commercial employees. Both this and the proportional valuation method make use of the average cost approach which assumes that relationships which existed in the past will hold in the future.

3.4.5 Determine Revenues

The previous sections have dealt with the cost side of the impact of planning policy changes and development proposals. When municipal expenditure patterns change, revenues also tend to change since municipalities are required to balance their operating budgets. The major sources of revenue which can be affected by policy changes or development proposals are provincial assistance, property taxes, payments-in-lieu of taxes, developer's contributions (lot levies) and user fees.

Provincial Assistance

Ontario provides two types of assistance to municipalities: conditional grants which subsidize specific services and unconditional grants which municipalities can use at their discretion. Conditional grants are payable on both operating and capital expenditures, and usually are formula based. Therefore, when spending on subsidized services increases, so does grant revenue.

Unconditional grants, on the other hand, are based on such factors as the amount of municipal taxes levied and also on the number of households in a municipality. Each of these grants are also paid according to a formula.

Full details on the specific formulae, including current grant rates, are available in the publication **Provincial Financial Assistance to Municipalities, Boards and Commissions.** This publication is updated annually and is sent to municipal treasurers. Copies can be obtained from the Ontario Government Bookstore, 880 Bay Street, Toronto, Ontario M7A 1N8.

Property Taxation

In the municipal budgetary process, property taxes represent the residual amount required by the municipality to match total revenues with total expenditures. That is to say, the municipality determines its tax requirement for a particular year by estimating total expenditures, deducting from them revenues from all non-tax sources, thus leaving the residual amount to be raised by taxes. The taxes are levied against the taxable assessment on each property in the municipality by applying a tax rate, commonly referred to as the mill rate.

The tax rate or mill rate is calculated by taking the total tax requirement and dividing by the total taxable assessment. Adjustments are made to reflect the fact that the mill rate to be applied against residential and farm properties is set by legislation to equal 85 percent of the commerical and industrial mill rate. Municipalities report the mill rate as a multiple of 1,000. For example, if the total tax requirement is $100,000 and the total taxable assessment is $5,000,000, the resulting mill rate is (100,000 ÷ 5,000,000) x 1,000 = 20 mills. For the local property taxpayer this equates to $20 tax for each $1,000 of taxable assessment.

Taxable assessment is divided into three major categories. These are residential and farm, commercial, and industrial and business. The business assessment is calculated as a percentage of commercial and industrial realty assessment. This percentage varies according to the nature of the business, ranging from 30 percent for a small retail business to 140 percent for a distillery.

Taxable assessment for a particular property or development is set by the Ministry of Revenue. The municipality should contact the appropriate property assessment regional office for an estimate of the probable taxable assessment generated by a new development. The Ministry of Revenue will indicate what information is required to prepare an estimate. The information is likely to be quite specific including items such as the number and type of residential units and floor area (square metres).

Once an estimate is received from the Ministry, it can be added to the current taxable assessment to establish the new tax base. A revised mill rate can then be calculated on the basis of total taxes, including those required as a result of the planning proposal, divided by the new total taxable assessment. It is important to note that the additional tax revenue resulting from a policy change or development proposal should not be calculated by multiplying the additional taxable assessment by the current mill rate without this recalculation.

Payments-in-Lieu of Taxes

Institutional buildings, such as government buildings, hospitals, colleges, etc., are exempt from assessment and therefore, taxation.

However, there are statutory payments-in-lieu of property taxes paid by the two senior levels of government. The federal government makes payments based on the assessed value of the property times the municipal commercial mill rate. The assessments are not set by the Ministry of Revenue, but rather by the federal government based on agreements with the Province. Payments on most properties owned by the Province are made on the basis of assessment, but do not include school taxes. On other provincial properties the payments are based on statutory rates. For example, if the new development includes a hospital, the rate is $50 per year for each bed. In the case of a college or university facility, the payment is $50 per student. Payments for provincial parks and experimental farms are based on an amount per hectare.

Developer's Contributions

Developers often pay the cost of the off-site infrastructure requirements associated with a new development or may provide the actual facilities. The developer then recovers the cost from the purchasers of the lots as they are sold. Alternatively, municipalities may charge the developer a lot levy to recover the costs of providing all or a portion of the capital works required to service the new development. The lot levy is normally set at a flat rate for each lot. Most municipalities have a levy for physical facilities, such as roads, sewer and water plants, and street lighting.

Lot levies are usually applied only against residential lots, although there are some instances of payments required from developers of commercial and industrial properties. For those municipalities that have lot levies, the rate can range from less than $1,000 per lot to over $5,000.

In municipalities which charge lot levies, the current lot levy rate can be applied to the estimated number of residential units to be produced, in order to provide an estimate of the capital revenue from this source.

User Fees

Revenue from user fees is derived from services such as water, sewer, transit, homes for the aged, and recreational programs. Estimates of user fee revenue are usually determined by multiplying the existing fee for each service by the expected increase in demand for the service. Using transit as an example, if a development proposal is expected to increase ridership by 100,000 trips per annum and the fare is 90 cents, then, the projected annual increase in transit revenue would be $90,000.

Other Revenues

Municipalities receive a range of relatively minor revenues from such things as dog-tag fees, trailer licences, etc. These are best estimated on a per capita basis, that is to say, determine the current "other revenues" per capita and multiply by the expected population increase. It is unlikely that there will be a substantial increase in the revenue from these sources.

3.5 Impact on School Boards

The impact of a planning policy change or development proposal on school boards is generally easier to assess than the impact on municipal services. School boards provide a single service while municipalities provide a range of services. The key factors affecting school board requirements are the age distribution of the population, the density of the residential component of a development proposal, the household composition (family households compared to single person households) and the current utilization of existing school facilities.

The procedure normally followed in determining the overall impact on schools is first to estimate the increase in number of new school aged children. This can be done in two ways. The present ratio of school age children to the total population in the municipality can be applied to the estimated increase in population to obtain an estimated school age population increase. Alternatively, the increase in the number of households can also be estimated and then the average number of children per household in the municipality can be used to determine the increase in school age children. The second step in the procedure is to examine existing school facilities to determine the extent to which they can accommodate the additional students. Many school boards have experienced declining enrollments,

consequently, an increase in the number of pupils may be relatively inexpensive for the school board to absorb since it may only involve hiring extra staff.

The overall level of secondary and elementary school expenditures is a significant component of the total property tax bill. School board costs account for approximately 50 percent of taxes levied by municipalities. However, while the total cost of the education system is significant, the incremental school cost to a particular municipality resulting from a policy change or development proposal may be relatively low.

School boards generally service a number of municipalities, with the costs of operating the system being shared by all municipalities in the board. Therefore, if a particular municipality induces an increase in education spending as a result of a planning policy change or new development, the cost is shared by the taxpayers of all of the municipalities within the school board's jurisdiction. In other words, the taxpayers of the particular municipality causing the increased education costs would shoulder the same impact as the taxpayers of the other municipalities within the board.

Specific details on costs, grant reporting requirements and financial arrangements can be obtained from local school boards and the Ministry of Education.

DETERMINING THE MUNICIPALITY'S CURRENT FINANCIAL POSITION

4.1 Overview

The next stage in conducting a financial impact analysis of a planning policy change or development proposal is to establish a baseline financial and socio-economic profile for the municipality.

Establishing a baseline profile involves two steps. The first step is to identify the relative financial position of the municipality in relation to that of other municipalities of similar size and servicing characteristics. This will give an idea of the municipality's ability to undertake new programs or expand existing services. Relatively minor planning policy changes or development proposals whose impacts can be absorbed within one year, can be reviewed in this context. The second step is to project the baseline profile into the future, usually a five or ten year period, on the basis of the municipality's existing capital and operating plans.

The extensions of the baseline profile into the future is necessary because it is unlikely that a major planning policy change or development proposal will be completed within one year and, therefore, it is important to know how the municipality's financial position will be affected through time. A project which may initially appear to have a negative impact may well turn out to be beneficial over the long term. For example, a new development which, over time, is expected to raise income levels in the community would strengthen the municipality's financial position since future local ratepayers would have a greater financial capacity to meet their tax obligations.

The data manipulations required to establish the baseline profile are often cumbersome and detailed. However, the availability of inexpensive computer time, either through the purchase of a mini or micro-computer or through time-sharing, as well as the use of computer forecasting and simulation models, have undoubtedly facilitated the task.[1]

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1 Ontario Land Corporation. Municipal and Education Financial Impact Computer Models. Ministry of Housing and Giffels Associates Ltd. City of Nanticoke Financial Impact Analysis (1979).

Unlike the process of identifying and quantifying servicing impacts (Chapter 3), the review of the municipality's current financial position depends on data which are mostly historical and are readily available from well established sources, such as the regular financial information return which is prepared for the Province and the capital budget of the municipality.

The remainder of this chapter describes the procedure normally followed in determining the current financial position of the municipality. The procedure includes the following basic steps:

- o selection of sample municipalities;
- o collection and manipulation of data; and
- o analysis of the indicators.

4.2 Selection of Sample Municipalities

This is one of the most crucial parts of the procedure. The sample is used to establish standards or averages against which the municipality is compared. The main criteria for selecting a sample of municipalities are: population, local servicing characteristics (eg. police, fire, sewer and water, etc.) geographic location, local government structure, urban or rural nature of municipality and make-up of local economy. If an inappropriate sample is selected, a misleading picture of the current financial health of the municipality can occur.

For example, if a northeastern Ontario township is being analyzed, provincial averages would not be appropriate. They would include Metropolitan Toronto and the regional municipalities which, combined, account for about two thirds of total municipal spending and revenues in the Province because they provide a much broader range of services than townships. Therefore, there is little meaningful information that can be drawn from provincial averages. Using the average for municipalities in northeastern Ontario alleviates these problems to some extent, but there are still many differences since towns and cities are included. The ideal solution would be the selection of four or five municipalities of similar size and servicing characteristics within northeastern Ontario, if possible.

Section 3.2 in Chapter 3 discussed the municipal government structure in Ontario and how this can have financial implications. These differences must also be taken into account when selecting a sample. For example, it is important that a rural township in southwestern Ontario with a population of about 2,500 be compared only to rural townships in a county in the southern or eastern part of the Province. Both of these areas have a county form of government.

Within the appropriate group of municipalities, care must be taken also to ensure that the sample has similar servicing characteristics. For example, a municipality with a large portion of shoreline on a lake cannot be compared with an agricultural township since it may have a large proportion of seasonal households, which do not place the same demand on services as permanent households.

The Ontario Municipal Directory provides information which can be of assistance in selecting the sample municipalities. It includes information on population, households and policing. Further information on sample selection can be obtained from the nearest office of the Field Services Branch of the Ministry of Municipal Affairs.

4.3 Collection and Manipulation of Data

The main source of financial information for determining the baseline profile is the municipality's Financial Information Return (FIR). The FIR is available about the middle of the year following the reporting year. For example, the 1983 FIR is prepared by mid-1984. Up to two thousand pieces of information can be reported in the return, ranging from the level of spending for each municipality to the number of municipal employees. Further updated financial information can be obtained from the budgets, both capital and operating, passed by council and from the mill rate by-law which sets out the amount of taxes to be levied.

The collection and manipulation of the information for municipalities can be a lengthy operation. However, the procedure has been made easier in recent years by the Municipal Analysis and Retrieval System (MARS) developed by the Ministry of Municipal Affairs. All 838 municipalities in the province are required by legislation to submit annually copies of their FIR.

In-year taxation and mill rate information and budgets reports are also submitted to the Municipal Management Policy Branch of the Ministry. The information is stored in the MARS database and is available from the Municipal Management Policy Branch of the Ministry. A publication, Local Government Finance in Ontario, which reviews the financial performance of municipalities is also prepared annually by the Municipal Finance Branch of the Ministry and is available from the Ontario Government Bookstore.

4.4 Analysis of the Indicators

The indicators generally used by the Ministry to establish the baseline profile fall into four categories and are outlined in Table 3.

Not all indicators may be employed in determining the baseline profile, nor should they be given the same weight in any specific analysis. Allowances must be made for the fact that all municipalities are unique in their own ways and different conditions may be present. For example, Municipality A might have a pay-as-you-go policy with respect to the financing of capital projects, while Municipality B may wish to spread the cost over a long period of time by borrowing. In Municipality A's case, indicators such as the level of reserves and transfers from the revenue fund and the level of residential property taxes per household are appropriate. In the case of Municipality B, the level of debt outstanding and related debt charges should be given prominence.

The presentation and analysis of the indicators should also include the impact of the existing capital program of the municipality, since such requirements will be in addition to those which may be generated by the policy change or development proposal.

Population

Population trends play an important role in both planning policy and financial analysis. An understanding of past demographic changes is necessary to be able to determine whether or not current population forecasts are realistic. Changes in population often lead to changes in servicing requirements. In turn, these can result in increases or decreases in municipal and school board costs.

TABLE 3: THE INDICATORS

Category	Indicators
Socio-Economic Profile	Population Assessment growth and mix Income levels Local economic activity and employment levels
Financial Capacity	Debt levels and debt capacity
Spending and Financing Patterns	Spending by service and object of expenditure Capital financing strategy
Financial Management Practices	Tax collection and billing Tax arrears Level of reserves and working funds Net financial position

Changes in age distribution may affect servicing costs, even in the absence of changes in the absolute level of the population. Usually, changes in age distribution occur over a relatively long period of time, giving municipalities time to adjust their services mix. For example, in the province as a whole, the population is getting older. This is the result of the post-war babyboom children marrying and starting families. The boom played a large part in creating the rapid urban expansion of the late sixties and the seventies which placed tremendous pressure on municipalities to provide new facilities. The pressure on certain types of services will continue as the boom moves through the various stages of the life cycle. While certain recreation facilities like ice hockey arenas are important now, the adaptation of those facilities to other recreational pursuits, such as fitness programs or jogging, may be required in the future as the population ages.[2]

Population statistics are often presented in terms of three age groups. The first is 0 to 19 years, the "dependent" age group, which requires such services as education and child care facilities. The second is 20 to 64 years, the "independent" age group. This is normally the employed, or workforce group. The family formation stage, 20 to 35 years of age, tends to put pressure on the housing stock and, consequently, on services such as municipal roads, sewer and water systems, schools and other physical facilities. Those over 35 years of age are likely to have a greater demand for recreational facilities and parks, since their children are older and they may have more leisure time. The third group are people 65 years and over. People in this group are usually retired from the workforce and place greater demands on health and home-support services than the younger age group.

While the aging of the population normally occurs gradually through time, there can be fluctuations from the trend. Some communities or neighbourhoods can experience a rapid change in the age distribution. In large urban centres it is not uncommon for a neighbourhood to "turn-over" as the older long term residents, whose children have left home, move out and younger families move in. Also, the phenomenon known as "white painting" can have a substantial impact, when new owners move into an older run-down neighbourhood and undertake considerable renovations and improvements of the housing stock. These changes can put unanticipated pressure on existing services and create demands for new ones.

Households

Changes in the number of households are usually similar to those for population, however, they have to be monitored separately in order to ensure that changing social patterns are taken into account. When the population declines, it does not always cause a decrease in the number of households. For example, the number of single parent households has been growing at a faster rate than the growth in households as a whole, thus putting pressure on services such as child care. A rapid increase in certain municipal costs may also be experienced, when the increase in households exceeds the rate of increase in population.

Assessment Growth and Mix

Assessment is important because it forms the basis for calculating municipal property tax revenue. Inter-municipal comparisons of local taxable assessment standards have shown that they have historically varied from municipality to municipality. However, trends in the growth of local taxable assessment for the particular municipality being evaluated is an indicator of its general financial and economic health. Local assessments for individual properties do not change unless there is a re-assessment, therefore, a steady growth in assessment reflects a steady increase in the number of residences and businesses.

The composition of assessment is also of importance since it describes the relative tax burden borne by each group of taxpayers. A high ratio of residential assessment to total assessment indicates that residential taxpayers bear a greater proportion of municipal costs. If the ratio for commercial, industrial and business assessment is high, then residences will bear a lower share of total taxes. The ratio can also help explain differences in property taxes for

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[2]See: Ministry of Tourism and Recreation, Aging Plant/Changing Communities, (1979). Toronto.

the average homeowner in different municipalities where service levels and expenditures are roughly equal.

Local Economic Activity

To assess a municipality's long term prospects, it is important to review the local economy, including its structure and, current and future prospects. This is particularly true for those municipalities which are dependent on one company or industry such as the auto industry, or on a single natural resource such as timber, nickel, gold, etc. Resource-based industries are subject to a wide range of factors beyond their control which in turn may directly impact on the viability of the municipality. Some of the factors include depletion of the resource and changing prices for the resource in the world markets.

A review of local industrial prospects is done to ensure that the demand for the new or expanded services will be there in the future. There are examples of situations where unforeseen major plant shutdowns or depletion of an ore body have left a municipality with facilities beyond its needs.

An analysis of the local economy should include the following items:

- **Major employers and current employment levels.** Names of companies and employment levels are available from the Scott's Industrial Directory of Ontario Manufacturers. Current employment levels and projections should be obtained directly from the companies listed in the directory, in order to give some indication of future prospects.

- **Recent record (three to five years) of plant openings and closings and related job gains or losses.** This is available from the Ministry of Industry, Trade and Technology and the Ministry of Labour.

- **Retail sales information.** The Financial Post Survey of Markets or discussions with the local chamber of commerce should supply the relevant data.

- **Labour force data.** The local Canada Employment Centres should be able to provide this data. New commercial and industrial development requires an available workforce with appropriate skills.

- **Special relationship with other municipalities.** If one municipality is a bedroom community for another which has the major share of area employment, it may also be necessary to ascertain the economic prospects of the municipality in which the employers are located.

Income Levels

The level of household income is very important since it reflects the ability of local taxpayers to pay for municipal services. When comparing the ability of taxpayers in different municipalities to support new services, the ratio of taxes to household income is often used as a guideline. It measures the relative financial burden taxpayers have to carry. It also measures spare taxing capacity available to a municipality. For example, local tax levels may presently account for 2.9 percent of household income in a municipality, which as a result of a development proposal has to construct new water treatment facilities. In other municipalities with water treatment plants, if the average proportion of income going to taxes is 3.5 percent, then this indicates that the municipality can raise taxes further and not make its taxpayers worse off than others with similar services.

Information on household income is available from taxation statistics, published on a regular basis by Revenue Canada. Where possible the figures should be cross-checked against any reliable local income surveys, for instance, those done in connection with housing needs surveys.

Debt Levels and Debt Capacity

A municipality normally has some degree of choice in the method of financing capital expenditures. It may use current revenues or accumulated reserves and reserve funds, issue debentures or use a combination of these methods. Debt issuing is the key component to be analyzed here and it is the only one of the methods to which provincial regulatory controls are applied.

If a municipality intends to borrow for a period of time exceeding the term of municipal council, it must receive approval from the Ontario Municipal Board. The Board has the discretion to authorize or refuse a municipality's request. In exercising its discretion the Board has developed a set of guidelines. The guidelines are published annually in a bulletin entitled: The Role of the Ontario Municipal Board With Respect to Undertakings Involving Long Term Commitments by Ontario Municipalities and School Boards.

The Board's basic guideline is that a municipality should not commit more than 20 percent of total own purposes expenditures to capital formation. In exceptional circumstances, such as the construction of sewer or water facilities, the Board may allow a municipality to exceed this limit, but only after a careful evaluation of the municipality's financial position and the potential impact on taxpayers. Consequently, the debt capacity of a municipality can be assessed by examining the items which the Board considers when determining debts approvals, including existing debt repayments and approved future spending. The calculation for determining the debt capacity is set out in the Board's bulletin.

Another criteria the Board considers is the taxpayers' ability to pay. If, as a result of providing relatively few services and having a low level of expenditures, a municipality is close to the 20 percent guideline, the Board may waive the guideline and approve the borrowing request. The main concern of the Board is that the municipality remains financially viable and that debt charges do not become an onerous burden on ratepayers.

Spending and Financing Patterns

The indicators in this category constitute an important part of the baseline profile. They generally reflect which services are being provided by a municipality, the relative importance of each service in terms of the proportion of the total budget spent on it, and how they are financed. Comparisons with sample municipalities may identify variances in the servicing and financing pattern of a particular community.

The analysis of expenditures by function and by object can be very useful. The function/object classification shows not only the service for which the expenditure occurred, but also whether the spending was for salaries, supplies and services, debt charges or transfers to other funds such as reserve and reserve funds. From this it is possible to identify the proportion of funding currently going to capital formation. Debt charges show the amount spent to amortize any debt outstanding on existing capital facilities. Transfers to reserves or reserve funds show the amount being contributed to future capital works.

The capital spending indicators, including those related to the existing capital program, help identify services where major capital spending has occurred in the past and will occur during the years covered by the program. This is important in assessing the impact of those planning policy changes or development proposals which require new facilities to be built.

Financial Management Practices

Municipal financial management plays a key role in ensuring the financial well-being of a municipality. However, it is not easily subject to statistical measurement. A review of those indicators which are directly responsive to the discretionary actions of the municipality can, nevertheless, provide a reasonable indication of local financial management practices.

Tax arrears levels can indicate either poor economic circumstances within the municipality or bad tax collection procedures. Rising levels of tax arrears as a portion of total taxes, for example, in the absence of poor economic conditions, suggests that current tax collection procedures should be reviewed.

The level of reserves and reserve funds reflect money a municipality has put aside from operating revenues to be spent on future projects. The importance of these funds or savings is that they serve to moderate future tax increases.

The amount of short term debt is also a useful indicator of cash management since a high level of debt may reflect a need to improve the cash flow.

Prudent financial management requires that municipalities carry out long term financial planning. In this context, the existence of a five year capital budget, adequate levels of

reserves for future capital projects and for working funds, a twelve month cash flow projection and short term investment of surplus funds, usually, indicate sound financial management practices.

Property Tax Levels

The cost of all local (municipal and school board) services to the average residential taxpayer is considered a good measure of affordability. Commercial and industrial property owners can pass on the cost of property taxes to consumers and can deduct them from corporate taxes as a business expense. Residential taxpayers, on the other hand, must absorb any increase in taxes and are therefore in a more vulnerable position. This, and the fact that residential tax levels are readily understood, measured and compared, represent the main reason for using it as the property tax indicator.

The recovery of costs for municipal services varies among municipalities, nevertheless, the largest portion of such costs is usually recovered through the property tax. Some services, such as garbage collection and sewer and water services, are paid for directly through a user fee or a combination of user fees and property tax. When comparing the cost of municipal and school board services of one municipality with another, it is important to include all direct charges. Comparisons based only on those tax levels calculated by mill rate are not acceptable because they do not measure the total financial burden borne by the average ratepayer.

To measure the relative weight of the burden, in comparison to residential taxpayers in other municipalities, tax levels are normally shown as a percentage of household income. Taxpayers with a higher level of household income can support a relatively higher level of taxes and be no worse off in terms of the portion of their income going to pay for them. This may give municipalities with higher average income levels more leverage to support higher levels of expenditures.

4.5 Conclusion

The most important part of preparing the baseline profile is tying all the indicators together into an integrated financial evaluation. Each indicator is generally interrelated with other indicators. The objective is to identify any pattern that may exist and isolate the key factors that contribute to the pattern. The prime rule is that any unusual statistics or trends must be examined and explained.

It is important to remember that each municipality is unique. A municipality's finances may also have been influenced by an important factor that is not obvious from the standard statistics reviewed during the evaluation. The approach taken in preparing the profile has to be flexible enough, so as to take into account unusual factors.

CHAPTER 5

DETERMINING THE IMPACT ON THE MUNICIPALITY

5.1 Overview

After completing the steps outlined in Chapter 3 and Chapter 4, the next task is to bring together all the information to arrive at the net overall financial impact. There are three approaches that can be used to perform this task. If there is only information on general changes, such as population projections, then a general approach is called for. If more data are available, a more detailed analysis can be undertaken. Finally, if the linkages between the different financial items are known or can be estimated, simulation techniques can be used.

5.2 General Approach

This approach is used in situations involving planning policy changes where detailed information is not readily available. If data on changes in the level and composition of the population are the only hard information available, then a broad estimating procedure will have to be used. This can be done either by examining the financial and socio-economic indicators from a sample of municipalities of the same size, or by using the municipality's current per capita costs and revenues to calculate the impact of the planning policy change.

The relative magnitude of the projected change in population generally determines which computation technique should be used. If a development proposal involving the addition of 300 people is undertaken by a municipality with a current population of 75,000, most of the increase in servicing requirements will likely be absorbed by current capacity of the physical facilities. Operating costs may be affected, but only at marginal levels, and these can be estimated using present per capita factors.

5.3 Detailed Approach

The second approach involves a detailed examination of the servicing costs and revenues discussed in Chapter 3, and weighing them against the indicators discussed in Chapter 4.

TABLE 4: NET IMPACT OF ALTERNATIVE DEVELOPMENT PROPOSALS IN YEAR 2 EXAMPLE

Indicators	Baseline	Municipality plus Development Option 1	Option 2	Sample Average
Socio-Economic Profile				
Population	70,000	71,063	72,195	65,500
Households	27,700	28,763	29,895	24,177
Household Income ($)	38,852	38,852	38,852	35,724
Assessment Growth (5 year annual) (%)	1.3	1.5	2.1	1.4
Financial Capacity				
Debt Capacity ($000)	18,940	18,150	18,125	29,182
Debt Charges Per Household ($)	128	132	133	158
Debt Charges as % of Operating Exp. (%)	8.8	9.0	9.1	7.3
Transfers to Capital and Reserves as % of Operating Exp. (%)	4.1	4.1	4.1	4.3
Spending Levels Per Household				
Operating ($)	1,457	1,440	1,411	1,965
Capital (last 5 year avg.) ($)	305	321	330	234
Residential Tax Levels Per Household				
Municipal Tax ($)	360	343	335	445
School Board Tax ($)	425	425	425	363
Special Charges ($)	94	94	100	110
Total Taxes ($)	879	862	860	918
Total Taxes as % of Household				
Income (%)	2.3	2.2	2.2	2.6

The first step is to put all costs and revenues on an annual basis for each year over a period of five years. Five years is usually selected to allow the financial impacts to fully work through the municipality's finances. The procedure can be summarized as follows:

- Estimate the change in operating costs for each service affected on a yearly basis.
- Convert all related new capital costs into their financing components (amount of debt issued, debt charges, transfers from reserves, transfers from the operating fund, other revenue) for each year.
- Add the additional annual costs to current annual expenditures to determine total future annual costs.
- Estimate the annual change in non-tax revenues.
- Add all additional annual revenues to current annual revenues to determine total future annual revenues.
- Add any changes in assessment to the current tax base.
- Re-calculate the indicators for each year of the five year period and draw appropriate conclusions.

To illustrate the approach, Table 4 shows how the indicators would be affected by a hypothetical development proposal consisting of two options. It should be noted that the calculations have been simplified for expository purposes. It should also be stressed that the table would be repeated for each year of the impact analysis period.

Development Option 1 consists mainly of single family homes. Development Option 2 involves a higher density of residential development with apartment and row units. The table shows the impact in the second year of the development. Column 1 shows the baseline profile of the municipality in the absence of the project; Column 2 the effect of Option #1; Column 3 the effect of Option 2 and Column 4 the average for a sample of similarly sized and serviced municipalities.

The net result of either option in this particular example would be an improvement in the municipality's financial position. Although the debt capacity would be reduced in either situation, a substantial portion would remain to allow the municipality to undertake other projects. The net effect for the residential taxpayer would be a decline of about 5.0 percent in average municipal taxes for Option 1 and close to 7.0 percent for Option 2. The municipality can therefore make the decision on non-financial criteria since both projects will have a positive impact.

5.4 Simulation Approach

If there are many different options under consideration (usually this would occur in a planning policy change situation), it may be desirable to employ simulation techniques. These techniques would incorporate all the steps included in the detailed approach and would depend extensively on computerized applications for determining the values of the indicators. For example, using per capita analysis techniques the relationship between increases in population and costs and revenues would be programmed thus allowing for their values, over time, to be automatically generated.

This type of analysis can also be applied to alternative development or growth locations. The City of Kelowna in British Columbia has developed a simulation model[3] to evaluate independent and cumulative impacts of alternative development proposals on the City's financial position.

5.5 Conclusion

The impact of the planning policy or development proposal can now be reported. It is important to remember that, outside of the legal requirements relating to the municipal budgeting process and the Ontario Municipal Board debt guidelines, the key financial indicator to be concerned with, in the case of a municipality, is how existing local property taxpayers will be affected. Another important consideration to remember is that each planning policy change or development proposal has, in addition to a financial impact, other impacts, many of which are intangible, and often difficult to measure. Ultimately, the responsibility for weighing the relative importance of financial and non-financial considerations in arriving at a decision rests solely with the elected municipal officials whose roles are to make such decisions.

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3 "Kelowna Finds Computer Modelling Aids Community Planning", Civic Public Works, 1984.

APPENDIX A

GLOSSARY OF FINANCIAL TERMS

Apportionment refers to the process of allocating the costs (to the participating municipalities) of those local government bodies which provide services to residents in more than one municipality. An example of apportionment is the allocation of Metropolitan Toronto costs to the constituent lower-tier municipalities (East York, Etobicoke, North York, Scarborough, Toronto and York).

Assessment refers to the value placed on each property in a municipality for purposes of levying property taxes. The assessed value is equal to a percentage of the market value of the property and is determined by the Ministry of Revenue. **Residential Assessment** refers to the value placed on those properties taxed at the residential rate (e.g. residential and farm properties, vacant land, etc.). **Commercial Assessment** normally refers to the value placed on those properties taxed at the commercial rate (e.g. commercial and industrial properties). Commercial and industrial properties are assigned, in addition to the assessed values, a **Business Assessment** which ranges from 30 percent to 140 percent of the assessed value of the property, depending on the nature of the business. **Total Assessment** is the sum of all property and business assessments. **Total Taxable Assessment** is equal to total assessment less the assessment on those properties which are, by statute, exempt from taxation. **Equalized Assessment** is total assessment restated in current market values and it is used for calculating certain grants and for apportionment. Equalized assessment is calculated by applying the Equalization Factor, established by the Ministry of Revenue for every municipality in Ontario, to the total assessment of the municipality. The **Assessment Roll** is the register, kept and updated by the municipal clerk, listing all properties (and their assessed values) in the municipality.

Borrowing refers to the issuance of **debentures**, known as **Long-Term Borrowing**, or to the obtaining of a short-term loan from a financial institution **(Temporary Borrowing)**. Temporary borrowing can be undertaken to finance a capital project prior to the issuance of a debenture or for operating purposes until tax receivables have been collected. In this latter regard, municipalities can borrow up to 70 percent of the taxes to be collected. Temporary borrowing must be repaid within the term of council. The amount of long-term borrowing that a municipality can incur is governed by the Ontario Municipal Board (OMB). The OMB establishes a **Debt Capacity** for each municipality. When a municipality wishes to borrow, it must apply to the OMB for approval. The Board then determines if the municipality has available debt capacity after current commitments have been taken into account.

Budget refers to the financial plan the municipality prepares annually. A budget includes estimates of expenditures and revenues for the year and has to be adopted by the council of the municipality by by-law. The budget is usually made up of two parts, the **Operating Budget** and the **Capital Budget (Program, Plan)**. Municipalities are required to have a Balanced Budget. However differences between budgeted and actual amounts invariably occur to give rise to Surpluses and Deficits which must be included in the following year's budget.

Capital Financing Strategy refers to the different ways municipalities choose to finance capital projects. Municipalities can finance their share of capital costs through Long-Term Borrowing, Appropriations from Reserves and Reserve Funds, Transfers from Current Revenues, or any combination of the three.

Capital Works refer to physical facilities or infrastructure such as roads, sewer and water systems, arenas, community centres, etc., that are durable and last beyond the term of council.

Conditional Grants are provincial payments to a municipality made on the condition the municipality incurs the expenditure for a particular designated service or purpose.

Developer's Contributions are amounts the municipality charges the developer to recover the costs of providing all or a portion of the off-site capital works required to service the new

development. The contribution is commonly referred to as a **Lot Levy.** The lot levy is a dollar rate per developed lot. The developer usually recovers the cost of the contribution through the sale of the developed properties. The revenue from developer's contributions is placed directly in a special reserve fund to be used only for specified purposes.

District Boards exist to provide a specific service, such as welfare, to two or more municipalities in northern Ontario. Members of the Board are usually appointed by the participating municipalities. The cost of providing the service is apportioned to member municipalities on the basis of equalized assessment.

Exempt Properties are those properties which are exempted from property taxation under the Assessment Act or other acts. Generally, exempt properties fall into two broad groups, those owned by other levels of government and public institutions, such as universities, and those owned by organizations of a charitable or non-profit nature such as the Boy Scouts of Canada or the YMCA. Exempt properties remain on the assessment roll. In the event an exempt property is leased or rented by an individual or business, property taxes are levied against the lessee or renter.

Financial Impact Analysis is the process of reviewing the financial position of a municipality and assessing the effect on that position of a change in servicing requirements resulting from specific events such as planning policy changes or development proposals.

Financial Information Return (FIR) is a document used by the Ministry of Municipal Affairs to collect detailed financial information on each of the 838 municipalities in the Province. The information collected is stored in the Ministry's database known as the **Municipal Analysis and Retrieval System (MARS).** While the MARS system is not available to the general public, it is accessible to municipalities and their consultants, subject to certain conditions. The FIR contains historical data back to 1977 on:

a) Operating expenditures by function and by object;

b) Operating revenues by source and by function;

c) Taxation data;

d) Capital revenues by function;

e) Capital expenditures by function;

f) Long-term debt outstanding by function;

g) Current and future debt charges on existing debt;

h) Debt obligations to school boards and upper-tier municipalities, where applicable;

i) Statement of reserves and reserve funds operations;

j) Statement of assets and liabilities at year end;

k) Data on the number of municipal employees by service or function, tax arrears, and tax adjustments, direct water and sewer billings, five-year forecast of capital spending and financing and a five-year forecast of operating expenditures.

Enquiries about the FIR or MARS should be directed to the Municipal Management Policy Branch, Ministry of Municipal Affairs, 11th floor, 777 Bay Street, Toronto, Ontario.

Financial Report (FR) is similar to that of any other corporate entity. It includes comparisons between actual and estimated expenditures and revenues, a statement of capital operations and a statement of assets and liabilities. The FR is a public document and is audited by provincially licensed auditors.

Mill Rate is the rate which, when applied to the assessed value of a property, produces the tax payable on that property. In descriptive terms, the mill rate is calculated by dividing the tax levy to be raised by the total taxable assessment and multiplying by 1000. The actual formula includes an adjustment for the fact that

the **Residential and Farm Mill Rate** is legislated to be 85 percent of the **Commercial Mill Rate** which is applied to commercial, industrial and business assessment. A **Special Area Mill Rate** may also be struck for properties in a special service area.

Requisitions are the funds which lower-tier municipalities pay to upper-tier municipalities and school boards.

Payments-in-lieu of Taxes (PIL) are paid by the Governments of Ontario and Canada and crown corporations on their properties. The basis for the payments vary depending on the type of property.

Property Taxes are the total property tax paid by local taxpayers. They include **Lower Tier** or **Own Purpose Taxes** plus **Upper-Tier Taxes** (where applicable) plus elementary and secondary **School Taxes** plus any **Special or User Charges,** including direct sewer and water billings.

Separated City (Town) refer to those municipalities in counties which are not part of the county system and therefore are not included in the apportionment process. Separated cities and towns operate as single-tier municipalities similar to municipalities in northern Ontario.

Special or User Charges are those amounts levied by a municipality, in addition to the amounts levied by mill rate, on specific groups of ratepayers. There are several types of special or user charges. **Frontage and Connect Charges** are usually used to recover the capital cost of sewer and water lines within particular areas of the municipality. **Direct Sewer and Water Billings** are used by many municipalities to recover both the capital and operating costs of sewer and water services. **Local Improvement Rates** are used to recover the cost of updating physical facilities which benefit only a specific area of the municipality (e.g. street lighting, traffic signals, surface drains and ditches, sidewalks). The owners of the properties in the area are required to pay for the local improvement. The designated local improvement area must be approved by the OMB.

Special Service Area is an area within the municipality which receives a service that is not available to other parts of the municipality and is designated as such, for example, an urban area within a mostly rural township. The cost of providing the special service is recovered from those property owners receiving the service. The OMB must approve a special service area.

Unconditional Grants are provincial payments to a municipality which are free of any condition as to the manner in which the funds shall be used. They can be applied to offset the cost of any service or combination of services at the discretion of the municipality.

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APPENDIX B

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